

Claims

- 1) A combination vaccine for the protection of poultry against *Ornithobacterium rhinotracheale*, characterized in that said combination vaccine comprises a live over-attenuated *Ornithobacterium rhinotracheale* strain and a live attenuated poultry virus.
- 2) A combination vaccine according to claim 1, characterized in that said live attenuated poultry virus is Infectious Bronchitis virus, Newcastle Disease virus, Turkey Rhinotracheitis virus, Marek's virus or Avian Reovirus.
- 3) A combination vaccine according to claim 1, characterized in that said live attenuated poultry virus is Infectious Bronchitis virus, Newcastle Disease virus or Turkey Rhinotracheitis virus.
- 4) A combination vaccine according to claim 1, characterized in that said live attenuated poultry virus is Newcastle Disease virus.
- 5) A combination vaccine according to claim 1, characterized in that said live attenuated poultry virus is Newcastle Disease virus type NDC2.
- 6) A combination vaccine according to claim 1, characterized in that said live attenuated poultry virus is Turkey Rhinotracheitis virus.
- 7) A combination vaccine according to claim 1, characterized in that said live attenuated poultry virus is Infectious Bronchitis virus.
- 8) A combination vaccine according to claims 1-7, characterized in that said live over-attenuated *Ornithobacterium rhinotracheale* has a mutation, said mutation preferably being a deletion, in the *purD*-gene or the *recA*-gene.
- 9) A combination vaccine according to claims 1-8, characterized in that said combination vaccine comprises an additional antigen derived from a virus or micro-organism pathogenic to poultry or genetic information encoding said antigen.
- 10) A combination vaccine according to claim 9, characterized in that the virus or micro-organism is selected from the group consisting of Infectious Bronchitis virus,

Infectious Bursal Disease (Gumboro), Chicken Anaemia agent, Avian Reovirus, *Mycoplasma gallisepticum*, Turkey Rhinotracheitis virus, *Haemophilus paragallinarum* (Coryza), Chicken Poxvirus, Avian Encephalomyelitisvirus, Duck Plague virus, Egg Drop syndrome virus, Infectious Laryngotracheitis virus, Herpes Virus of Turkeys, Eimeria species, *Ornithobacterium rhinotracheale*, *Pasteurella multocida*, *Mycoplasma synoviae*, *Salmonella* species and *E. coli*.

- 11) Use of a live over-attenuated *Ornithobacterium rhinotracheale* strain and a live attenuated poultry virus for the manufacturing of a combination vaccine for the protection of poultry against *Ornithobacterium rhinotracheale*.
- 12) Use of a live over-attenuated *Ornithobacterium rhinotracheale* strain and a live attenuated poultry virus for the manufacturing of a combination vaccine for the protection of poultry against *Ornithobacterium rhinotracheale*, wherein the live over-attenuated *Ornithobacterium rhinotracheale* strain and the live attenuated poultry virus are administered simultaneously, separately or sequentially.
- 13) Method for the preparation of a combination vaccine according to claims 1-10, characterized in that said method comprises the admixing of a live over-attenuated *Ornithobacterium rhinotracheale* strain, a live attenuated poultry virus and a pharmaceutically acceptable carrier.
- 14) A vaccination kit for the immunization of poultry against *Ornithobacterium rhinotracheale*, characterized in that said kit comprises
 - a) a live over-attenuated *Ornithobacterium rhinotracheale* strain and
 - b) a live attenuated poultry virus and
 - c) optionally a pharmaceutically acceptable carrier for the component under a and/or b.
- 15) A vaccination kit according to claim 14, characterized in that the carrier comprises an adjuvant.